Maryland HIV/AIDS Quarterly Update

Fourth Quarter 2016

Data reported through December 31, 2016

Center for HIV Surveillance, Epidemiology and Evaluation
Infectious Disease Epidemiology and Outbreak Response Bureau
Prevention and Health Promotion Administration
Maryland Department of Health and Mental Hygiene
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Section I – Background Information

HIV/AIDS Reporting Requirements

The Maryland HIV/AIDS Reporting Act of 2007 went into effect on April 24, 2007. The law expanded HIV/AIDS reporting and required that HIV cases be reported by name. The following highlights the reporting requirements of Health-General Articles 18-201.1, 18-202.1, and 18-205 of the Annotated Code of Maryland, as specified in COMAR 10.18.02.

- Physicians are required to report patients in their care with diagnoses of HIV or AIDS immediately to the Local Health Department where the physician's office is located by mailing DHMH Form 1140. Reports are also accepted by phone.

- Physicians are required to report infants born to HIV positive mothers within 48 hours to the State Health Department by mailing DHMH Form 1140. Reports are also accepted by phone.

- Clinical and infection control practitioners in hospitals, nursing homes, hospice facilities, medical clinics in correctional facilities, inpatient psychiatric facilities, and inpatient drug rehabilitation facilities are required to report patients in the care of the institution with diagnoses of HIV or AIDS within 48 hours to the Local Health Department where the institution is located by mailing DHMH Form 1140. Reports are also accepted by phone.

Facilities with large volumes are encouraged to contact the State Health Department to establish electronic reporting.

- Laboratory directors are required to report patients with laboratory results indicating HIV infection (e.g., positive confirmatory HIV diagnostic tests, all CD4 immunological tests, all HIV viral load tests, and all HIV genotype and phenotype tests) within 48 hours to the Local Health Department where the laboratory is located, or if out of state to the Maryland State Health Department, by mailing DHMH Form 4492. Laboratories are encouraged to contact the State Health Department to establish electronic reporting.

Reporting forms and instructions are available on our website:
http://phpa.dhmh.maryland.gov/oideor/chse/sitepages/reporting-material.aspx

For Assistance with HIV/AIDS Reporting

For assistance with reporting, including establishment of routine, electronic, or other alternate methods of reporting to the Health Department, please contact the Center for HIV Surveillance, Epidemiology and Evaluation in the Maryland Department of Health and Mental Hygiene at 410-767-5227.

Limitations in the HIV/AIDS Data

This epidemiological profile only contains data for HIV and AIDS cases that have been diagnosed by a health care provider, were reported to the health department by name, and were residents of Maryland at the time of diagnosis. Nationally, it has been estimated that 13.0% of people living with HIV infection are undiagnosed. In Maryland, it is estimated that 16.3% of people living with HIV infection are undiagnosed. In addition, despite a massive effort during which over 17,000 HIV cases were reported after the Maryland HIV reporting law changed on April 24, 2007, not all diagnosed HIV cases previously reported by Maryland's code-based identifier were located and re-reported by name. In addition, many of the re-reported HIV cases were identified by a recent diagnosis and not by their earliest diagnosis, resulting in an under-reporting of HIV diagnoses before 2001 and an over-reporting of HIV diagnoses from 2001 to 2008. Caution should be exercised in using the number of living HIV cases without AIDS and in interpreting trends in the number of reported HIV diagnoses. Furthermore, laboratory data are only available for cases receiving medical care, usually only at facilities in Maryland, and only includes test results that have been reported to the health department.

In addition to providing estimates of prevalent cases by residence at HIV diagnosis, this epidemiological profile includes estimates for HIV cases whose current residence as of 12/31/2016 was in Maryland. Current residence data are restricted to cases for which there is a case report form or laboratory test reported between 1/1/2009 and 6/30/2016. Restricting address data to recent years presents the most accurate data available and helps to account for cases that may have moved out of state whose data would no longer be reported in Maryland. However, current residence data excludes cases that may be residents of Maryland but have fallen out of care during the most recent seven years. Current residence utilizes addresses as recent as 2016 but uses laboratory data from 2015 to allow for laboratory reporting.

Please note that data reported in the quarterly reports may not match data reported in the annual epidemiological profiles due to difference in reporting periods. In addition, not all data has been geocoded in the quarterly reports and therefore is preliminary. Geocoding is the process of assigning geographic identifiers to map features and data records. Addresses are standard data elements required by law and submitted as part of reporting requirements; however, the information may be incomplete which then requires a geocoding process to improve the quality of data. This process is fully completed on the end-of-the-year data set.

Stages of a Case of HIV/AIDS

Untreated HIV disease progresses from HIV infection to AIDS to death. These are biological events that occur whether or not a person receives any medical care. For example, a person can be HIV infected but never have an HIV test and so they do not have an HIV diagnosis. A medical provider diagnoses that these biological events have occurred and records them as a medical event. The law requires medical providers to report these medical events to the Health Department, thereby creating a surveillance event.

Time Point	Biological Event	Medical Event	Surveillance Event
1	HIV Infection		
2		HIV Diagnosis	
3			HIV Report
4	AIDS Conditions		
5		AIDS Diagnosis	
6			AIDS Report
7	Death		
8		Death Diagnosis	
9			Death Report

For surveillance purposes, a case of HIV/AIDS can only move through time in one direction, from HIV infection to death report [from time point 1 to time point 9], but may skip over individual stages. Events can occur simultaneously, but usually there is a time lag between them. The time lag between events can be measured in days, months, or years.

For example, the time between HIV infection [time point 1] and the test that diagnoses HIV [time point 2] may be several years, and it may then take several days for the laboratory and physician to report the diagnosis to the health department [time point 3]. In a second example, a person with diagnosed and reported HIV infection [time point 3] may die [time point 7] without developing AIDS, thereby skipping the three AIDS events (conditions, diagnosis, and report [time points 4, 5 and 6]). And in a third example, a person with undiagnosed HIV infection [time point 1] may become sick, enter the hospital, and die [time point 7] of what is later determined to be AIDS. In that situation, HIV diagnosis [time point 2], AIDS diagnosis [time point 5], and death diagnosis [time point 8] would all occur at the same time, and that would have been many years after the initial HIV infection [time point 1].

Changes in Case Terminology

The terminology for HIV and AIDS cases was changed from earlier epidemiological profiles to be more precise, with Reported Diagnoses replacing Incidence and Living Cases replacing Prevalence. Incidence is a measure of the number of new events (such as HIV infections) in a population during a period of time. Prevalence is a measure of the number of people living with a condition (such as HIV) in a population at a certain time. Prevalence includes both new and old diagnosed cases as well as undiagnosed infections. For HIV, Incidence and Prevalence cannot be directly measured and must be estimated using statistical methods. The HIV surveillance system is able to provide the actual number of diagnoses and deaths that are reported in the population.

For this epidemiological profile, the reports received through a certain time (a quarter-year) are used to generate the number of diagnoses during the prior years. This six-month lag allows for delays in reporting and time to complete investigations. For example, the Reported HIV Diagnoses for 6/1/2015-6/30/2016 are the total of the reported HIV cases with or without an AIDS diagnosis, diagnosed with HIV during 6/1/2015-6/30/2016, as reported by name through 12/31/2016.

To calculate the number of Living Cases we count up all of the Reported Diagnoses from the beginning of the epidemic (all the Reported HIV Diagnoses each year) and subtract all of the Reported Deaths. For example, the Total Living HIV Cases on 6/30/2016 are the total of the reported HIV Cases with or without an AIDS diagnosis and not reported to have died as of 12/31/2016 as reported by name through 12/31/2016.

Laboratory Data

CD4+ T-lymphocyte tests are measures of a person's immune system function. An HIV infected adult is considered to have AIDS if they have less than 200 CD4 cells per microliter of blood. Viral load (VL) tests are measures of the amount of HIV in a person's body. The goal of HIV treatment is to have a very low number of copies of virus per milliliter of blood, below what the test can measure, which is called an undetectable level. Treatment recommendations are that a person in HIV medical care should have their CD4 and VL levels measured regularly, at least once per year. We use the presence of these lab tests as an indicator that someone has been "linked to care" initially after diagnosis or in following years that they remain "in care".

Sources of Data

Information on HIV and AIDS diagnoses, including residence at diagnosis, age, race/ethnicity, sex at birth, country of birth, vital status, HIV exposure category, and CD4 and HIV viral load test results are from the Maryland Department of Health and Mental Hygiene's Enhanced HIV/AIDS Reporting System (eHARS), December 31, 2016.

Population data by sex, age, and race/ethnicity are from the July 1, 2015 U.S. Census Estimates. Due to estimation limitations, some population totals may not equal the sum of its components.

Tabulation of Column Totals

Figures in tables and generally in the text have been rounded. Discrepancies in tables between totals and sums of components are due to rounding.

Data Suppression

In order to protect the confidentiality of reported HIV cases, data are suppressed in the following instances:

- Data describing a demographic group or geographic area (e.g. ZIP code) with a population less than 1,000 people.
- All clinical/laboratory information if it is describing less than 5 cases.
- All exposure/risk information if it is describing less than 5 cases, except in the case of "other" exposure.
- If any cell is suppressed, additional cells are also suppressed as necessary to prevent back calculation of the suppressed cell(s).

Glossary of Terms

Adult/Adolescent Living HIV Cases with AIDS: Reported HIV diagnoses, age 13 years or older at HIV diagnosis, with an AIDS diagnosis, and not reported to have died as of 12/31/2016.

Adult/Adolescent Living HIV Cases without AIDS: Reported HIV diagnoses, age 13 years or older at HIV diagnosis, without an AIDS diagnosis, and not reported to have died as of 12/31/2016.

Adult/Adolescent Reported AIDS Diagnoses: Reported HIV diagnoses, age 13 years or older at HIV diagnosis, with an initial AIDS diagnosis during the specified year.

Adult/Adolescent Reported HIV Diagnoses: Reported HIV diagnoses, age 13 years or older at HIV diagnosis, with an initial HIV diagnosis during the specified year.

Adult/Adolescent Total Living HIV Cases: Reported HIV diagnoses, age 13 years or older at HIV diagnosis, with or without an AIDS diagnosis, and not reported to have died as of 12/31/2016.

CD4 Result Distribution (<200, 200-349, 350-499, 500+): Percent of cases with a CD4 test distributed by their CD4 count results (cells per microliter).

Current Residence: Jurisdiction of residence from the most recent laboratory test or case report between 1/1/2009-6/30/2016.

First CD4 Test Result: First reported CD4 test result obtained within 12 months following initial HIV diagnosis.

Jurisdiction of Residence at AIDS Diagnosis: Jurisdiction of residence at time of initial AIDS diagnosis.

Jurisdiction of Residence at Diagnosis: Jurisdiction of residence at the later of time of initial HIV diagnosis or time of initial AIDS diagnosis.

Jurisdiction of Residence at HIV Diagnosis: Jurisdiction of residence at time of initial HIV diagnosis.

Mean Years from HIV Diagnosis (to AIDS Diagnosis): Mean number of years from initial HIV diagnosis to initial AIDS diagnosis for cases with a reported AIDS diagnosis.

Median: The measure of central location which divides a set of data into two equal parts.

Median Count (First CD4): Median CD4 count (cells per microliter) of the first CD4 test result reported within 12 months following initial HIV diagnosis.

Median Count (Recent CD4): Median CD4 count (cells per microliter) of the most recent CD4 test result measured in the specified year, reported through 12/31/2016.

Median Unsuppressed (Viral Load): Median unsuppressed viral load (copies per milliliter) among adult/adolescent living HIV cases with a most recent viral load test result measured in the specified year of 200 copies per milliliter or greater, reported through 12/31/2016.

Percent Change: The extent to which a county gained or lost HIV/AIDS cases relative to the number of cases diagnosed in the county.

Percent Late HIV Diagnosis (for AIDS diagnoses): Percent of adult/adolescent reported AIDS diagnoses with an initial HIV diagnosis less than or equal to 12 months prior to their initial AIDS diagnosis.

Percent Late HIV Diagnosis (for HIV diagnoses): Percent of adult/adolescent reported HIV diagnoses with an initial AIDS diagnosis less than or equal to 12 months after their initial HIV diagnosis.

Percent Linked to Care: Percent of adult/adolescent reported HIV diagnoses with a CD4 or viral load test performed less than or equal to 3 months after their initial HIV diagnosis.

Percent Suppressed (Viral Load): Percent of adult/adolescent total living HIV cases with a most recent viral load measured in the specified year of less than 200 copies per milliliter reported through 12/31/2016.

Population Age 13+: Population age 13 years or older, estimate for 7/1/2015.

Rate: A proportion used to represent risk for disease within a given population. It is calculated by dividing the number of diagnoses by the number of persons at risk (population estimate).

Ratio (1 in X): Number of people for every 1 living HIV case in the population, or 1 living HIV case in every X number of people.

Recent CD4 Test Result: The most recent CD4 test result measured in the specified year, reported through 12/31/2016.

Recent Viral Load Test Result: The most recent viral load test result measured in the specified year, reported through 12/31/2016.

DHMH Non-Discrimination Statement

The Department of Health and Mental Hygiene (DHMH) complies with applicable Federal civil right laws and does not discriminate on the basis of race, color, national origin, age, disability in its health programs and activities.

English
Help is available in your language: 410-767-5227 (TTY: 1-800-735-2258). These services are available for free.

Español/Spanish
Hay ayuda disponible en su idioma: 410-767-5227 (TTY: 1-800-735-2258). Estos servicios están disponibles gratis.

中文/Chinese
用您的语言为您提供帮助: 410-767-5227 (TTY: 1-800-735-2258). 这些服务都是免费的

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Section II – Adult/Adolescent Cases by Jurisdiction

Table 1 – Adult/Adolescent HIV Diagnoses during 6/1/2015-6/30/2016, First CD4 Test Result, Percent Linked to Care, and Percent Late Diagnosis, by Jurisdiction, Reported through 12/31/2016

JURISDICTION OF RESIDENCE AT HIV DIAGNOSIS	Population Age 13+	Adult/Adolescent Reported HIV Diagnoses							
		No.	% of Total	Rate	First CD4 Test Result			% Linked to Care	% Late HIV Diagnosis
					No. with Test	% with Test	Median Count		
Allegany	63,523	2	0.2%	3.1	***	***	***	***	***
Anne Arundel	472,498	53	4.6%	11.2	43	81.1%	238	83.0%	37.7%
Baltimore City	523,202	280	24.2%	53.5	237	84.6%	412	86.4%	20.4%
Baltimore	701,736	143	12.3%	20.4	123	86.0%	417	90.9%	18.9%
Calvert	76,074	3	0.3%	3.9	***	***	***	***	***
Caroline	27,119	2	0.2%	7.4	***	***	***	***	***
Carroll	142,863	2	0.2%	1.4	***	***	***	***	***
Cecil	85,936	4	0.3%	4.7	***	***	***	***	***
Charles	129,678	28	2.4%	21.6	25	89.3%	367	85.7%	21.4%
Dorchester	27,278	14	1.2%	51.3	11	78.6%	131	100.0%	57.1%
Frederick	204,660	15	1.3%	7.3	12	80.0%	404	80.0%	13.3%
Garrett	25,567	0	0.0%	0.0	0	0.0%	--	0.0%	0.0%
Harford	210,992	15	1.3%	7.1	11	73.3%	176	80.0%	40.0%
Howard	260,100	26	2.2%	10.0	20	76.9%	301	80.8%	23.1%
Kent	17,436	1	0.1%	5.7	***	***	***	***	***
Montgomery	864,331	190	16.4%	22.0	164	86.3%	365	87.4%	24.7%
Prince George's	758,979	319	27.5%	42.0	276	86.5%	368	85.9%	23.5%
Queen Anne's	41,518	2	0.2%	4.8	***	***	***	***	***
Saint Mary's	91,688	4	0.3%	4.4	***	***	***	***	***
Somerset	22,563	2	0.2%	8.9	***	***	***	***	***
Talbot	32,559	2	0.2%	6.1	***	***	***	***	***
Washington	126,168	7	0.6%	5.5	7	100.0%	253	100.0%	28.6%
Wicomico	86,317	17	1.5%	19.7	15	88.2%	295	88.2%	29.4%
Worcester	45,221	3	0.3%	6.6	***	***	***	***	***
Corrections	--	24	2.1%	--	20	83.3%	448	75.0%	4.2%
TOTAL	5,038,007	1,158	100.0%	23.0	986	85.1%	373	86.7%	23.2%

*** Data withheld due to low population counts and/or case counts

Adult/Adolescent Reported HIV Diagnoses: Reported HIV diagnoses, age 13 years or older at HIV diagnosis, with an initial HIV diagnosis during the specified year.
Jurisdiction of Residence at HIV Diagnosis: Jurisdiction of residence at time of initial HIV diagnosis.
Population Age 13+: Population age 13 years or older, estimate for 7/1/2015.
Rate: A proportion used to represent risk for disease within a given population. It is calculated by dividing the number of diagnoses by the number of persons at risk (population estimate).
First CD4 Test Result: First reported CD4 test result obtained within 12 months following initial HIV diagnosis.
Median Count (First CD4): Median CD4 count (cells per microliter) of the first CD4 test result reported within 12 months following initial HIV diagnosis.
Percent Linked to Care: Percent of adult/adolescent reported HIV diagnoses with a CD4 or viral load test performed less than or equal to 3 months after their initial HIV diagnosis.
Percent Late HIV Diagnosis (for HIV diagnoses): Percent of adult/adolescent reported HIV diagnoses with an initial AIDS diagnosis less than or equal to 12 months after their initial HIV diagnosis.

Table 2 – Adult/Adolescent AIDS Diagnoses during 6/1/2015-6/30/2016, Mean Years from HIV Diagnosis and Percent Late HIV Diagnosis, by Jurisdiction, Reported through 12/31/2016

JURISDICTION OF RESIDENCE AT AIDS DIAGNOSIS	Population Age 13+	Adult/Adolescent Reported AIDS Diagnoses				
		No.	% of Total	Rate	Mean Years from HIV Diagnosis	% Late HIV Diagnosis
Allegany	63,523	2	0.3%	3.1	***	***
Anne Arundel	472,498	31	5.1%	6.6	3.6	64.5%
Baltimore City	523,202	180	29.5%	34.4	5.7	34.4%
Baltimore	701,736	82	13.4%	11.7	6.1	35.4%
Calvert	76,074	1	0.2%	1.3	***	***
Caroline	27,119	2	0.3%	7.4	***	***
Carroll	142,863	2	0.3%	1.4	***	***
Cecil	85,936	2	0.3%	2.3	***	***
Charles	129,678	14	2.3%	10.8	3.8	57.1%
Dorchester	27,278	10	1.6%	36.7	4.1	80.0%
Frederick	204,660	3	0.5%	1.5	***	***
Garrett	25,567	0	0.0%	0.0	--	0.0%
Harford	210,992	8	1.3%	3.8	0.6	87.5%
Howard	260,100	12	2.0%	4.6	1.4	58.3%
Kent	17,436	1	0.2%	5.7	***	***
Montgomery	864,331	80	13.1%	9.3	2.6	67.5%
Prince George's	758,979	155	25.4%	20.4	4.1	49.0%
Queen Anne's	41,518	1	0.2%	2.4	***	***
Saint Mary's	91,688	4	0.7%	4.4	***	***
Somerset	22,563	3	0.5%	13.3	***	***
Talbot	32,559	0	0.0%	0.0	--	0.0%
Washington	126,168	3	0.5%	2.4	***	***
Wicomico	86,317	6	1.0%	7.0	2.5	66.7%
Worcester	45,221	1	0.2%	2.2	***	***
Corrections	--	8	1.3%	--	7.5	37.5%
TOTAL	5,038,007	611	100.0%	12.1	4.6	47.6%

*** Data withheld due to low population counts and/or case counts

Adult/Adolescent Reported AIDS Diagnoses: Reported HIV diagnoses, age 13 years or older at HIV diagnosis, with an initial AIDS diagnosis during the specified year.
Jurisdiction of Residence at AIDS Diagnosis: Jurisdiction of residence at time of initial AIDS diagnosis.
Population Age 13+: Population age 13 years or older, estimate for 7/1/2015.
Rate: A proportion used to represent risk for disease within a given population. It is calculated by dividing the number of diagnoses by the number of persons at risk (population estimate).
Mean Years from HIV Diagnosis (to AIDS Diagnosis): Mean number of years from initial HIV diagnosis to initial AIDS diagnosis for cases with a reported AIDS diagnosis.
Percent Late HIV Diagnosis (for AIDS diagnoses): Percent of adult/adolescent reported AIDS diagnoses with an initial HIV diagnosis less than or equal to 12 months prior to their initial AIDS diagnosis.

Table 3 – Adult/Adolescent HIV Cases Alive on 6/30/2016, by Jurisdiction of Residence, Reported through 12/31/2016

JURISDICTION OF RESIDENCE	Population Age 13+	Adult/Adolescent Living HIV Cases without AIDS			Adult/Adolescent Living HIV Cases with AIDS			Adult/Adolescent Total Living HIV Cases			
		No.	% of Total	Rate	No.	% of Total	Rate	No.	% of Total	Rate	Ratio (1 in X)
Allegany	63,523	39	0.3%	61.4	56	0.4%	88.2	95	0.3%	149.6	668
Anne Arundel	472,498	566	4.3%	119.8	648	4.1%	137.1	1,214	4.2%	256.9	389
Baltimore City	523,202	4,073	30.6%	778.5	5,686	36.1%	1,086.8	9,759	33.6%	1,865.2	53
Baltimore	701,736	1,426	10.7%	203.2	1,681	10.7%	239.5	3,107	10.7%	442.8	225
Calvert	76,074	56	0.4%	73.6	61	0.4%	80.2	117	0.4%	153.8	650
Caroline	27,119	28	0.2%	103.2	44	0.3%	162.2	72	0.2%	265.5	376
Carroll	142,863	55	0.4%	38.5	50	0.3%	35.0	105	0.4%	73.5	1,360
Cecil	85,936	52	0.4%	60.5	74	0.5%	86.1	126	0.4%	146.6	682
Charles	129,678	246	1.8%	189.7	236	1.5%	182.0	482	1.7%	371.7	269
Dorchester	27,278	44	0.3%	161.3	85	0.5%	311.6	129	0.4%	472.9	211
Frederick	204,660	182	1.4%	88.9	179	1.1%	87.5	361	1.2%	176.4	566
Garrett	25,567	7	0.1%	27.4	4	0.0%	15.6	11	0.0%	43.0	2,324
Harford	210,992	187	1.4%	88.6	239	1.5%	113.3	426	1.5%	201.9	495
Howard	260,100	293	2.2%	112.6	265	1.7%	101.9	558	1.9%	214.5	466
Kent	17,436	8	0.1%	45.9	26	0.2%	149.1	34	0.1%	195.0	512
Montgomery	864,331	1,617	12.2%	187.1	1,579	10.0%	182.7	3,196	11.0%	369.8	270
Prince George's	758,979	3,602	27.1%	474.6	3,659	23.2%	482.1	7,261	25.0%	956.7	104
Queen Anne's	41,518	21	0.2%	50.6	28	0.2%	67.4	49	0.2%	118.0	847
Saint Mary's	91,688	74	0.6%	80.7	86	0.5%	93.8	160	0.6%	174.5	573
Somerset	22,563	25	0.2%	110.8	37	0.2%	164.0	62	0.2%	274.8	363
Talbot	32,559	27	0.2%	82.9	40	0.3%	122.9	67	0.2%	205.8	485
Washington	126,168	150	1.1%	118.9	194	1.2%	153.8	344	1.2%	272.7	366
Wicomico	86,317	95	0.7%	110.1	133	0.8%	154.1	228	0.8%	264.1	378
Worcester	45,221	32	0.2%	70.8	50	0.3%	110.6	82	0.3%	181.3	551
Corrections	--	395	3.0%	--	631	4.0%	--	1,026	3.5%	--	--
TOTAL	5,038,007	13,300	100.0%	264.0	15,771	100.0%	313.0	29,071	100.0%	577.0	173

Jurisdiction of Residence: Jurisdiction of residence at time of initial HIV diagnosis or most recent lab test.
Population Age 13+: Population greater than or equal to 13 years old, estimate for 7/1/2015.
Adult/Adolescent Living HIV Cases without AIDS: Reported HIV diagnoses, age 13 years or older at HIV diagnosis, without an AIDS diagnosis, and not reported to have died as of 12/31/2016.
Adult/Adolescent Living HIV Cases with AIDS: Reported HIV diagnoses, age 13 years or older at HIV diagnosis, with an AIDS diagnosis, and not reported to have died as of 12/31/2016.
Adult/Adolescent Total Living HIV Cases: Reported HIV diagnoses, age 13 years or older at HIV diagnosis, with or without an AIDS diagnosis, and not reported to have died as of 12/31/2016.
Rate: A proportion used to represent risk for disease within a given population. It is calculated by dividing the number of diagnoses by the number of persons at risk (population estimate).
Ratio (1 in X): Number of people for every 1 living HIV case in the population, or 1 living HIV case in every X number of people.

Table 3A – Adult/Adolescent HIV Cases Alive on 6/30/2016, by Jurisdiction and Current Residence, Reported through 12/31/2016

JURISDICTION OF RESIDENCE	Population Age 13+	Adult/Adolescent Living HIV Cases with or without AIDS Diagnosis								
		Residence at HIV Diagnosis				Current Residence				% Change
		No.	% of Total	Rate	Ratio	No.	% of Total	Rate	Ratio	
Allegany	63,523	73	0.2%	114.9	870	95	0.3%	149.6	668	30.1%
Anne Arundel	472,498	1,237	3.9%	261.8	381	1,214	4.2%	256.9	389	-1.9%
Baltimore City	523,202	11,865	37.3%	2,267.8	44	9,759	33.6%	1,865.2	53	-17.7%
Baltimore	701,736	3,280	10.3%	467.4	213	3,107	10.7%	442.8	225	-5.3%
Calvert	76,074	97	0.3%	127.5	784	117	0.4%	153.8	650	20.6%
Caroline	27,119	65	0.2%	239.7	417	72	0.2%	265.5	376	10.8%
Carroll	142,863	133	0.4%	93.1	1,074	105	0.4%	73.5	1,360	-21.1%
Cecil	85,936	108	0.3%	125.7	795	126	0.4%	146.6	682	16.7%
Charles	129,678	455	1.4%	350.9	285	482	1.7%	371.7	269	5.9%
Dorchester	27,278	128	0.4%	469.2	213	129	0.4%	472.9	211	0.8%
Frederick	204,660	329	1.0%	160.8	622	361	1.2%	176.4	566	9.7%
Garrett	25,567	8	0.0%	31.3	3,195	11	0.0%	43.0	2,324	37.5%
Harford	210,992	426	1.3%	201.9	495	426	1.5%	201.9	495	0.0%
Howard	260,100	515	1.6%	198.0	505	558	1.9%	214.5	466	8.3%
Kent	17,436	36	0.1%	206.5	484	34	0.1%	195.0	512	-5.6%
Montgomery	864,331	3,981	12.5%	460.6	217	3,196	11.0%	369.8	270	-19.7%
Prince George's	758,979	6,873	21.6%	905.6	110	7,261	25.0%	956.7	104	5.6%
Queen Anne's	41,518	49	0.2%	118.0	847	49	0.2%	118.0	847	0.0%
Saint Mary's	91,688	130	0.4%	141.8	705	160	0.6%	174.5	573	23.1%
Somerset	22,563	53	0.2%	234.9	425	62	0.2%	274.8	363	17.0%
Talbot	32,559	59	0.2%	181.2	551	67	0.2%	205.8	485	13.6%
Washington	126,168	294	0.9%	233.0	429	344	1.2%	272.7	366	17.0%
Wicomico	86,317	215	0.7%	249.1	401	228	0.8%	264.1	378	6.0%
Worcester	45,221	78	0.2%	172.5	579	82	0.3%	181.3	551	5.1%
Corrections	--	1,338	4.2%	--	--	1,026	3.5%	--	--	-23.3%
Total	5,038,007	31,825	100.0%	631.7	158	29,071	100.0%	577.0	173	-8.7%

Adult/Adolescent Total Living HIV Cases: Reported HIV diagnoses, age 13 years or older at HIV diagnosis, with or without an AIDS diagnosis, and not reported to have died as of December 31st of the specified year.
Jurisdiction of Residence: Jurisdiction of residence at time of initial HIV diagnosis or most recent lab test.
Population Age 13+: Population age 13 years or older, estimate for 7/1/2015.
Residence at HIV Diagnosis: Jurisdiction of residence at time of initial HIV diagnosis.
Current Residence: Jurisdiction of residence from the most recent laboratory test or case report between 1/1/2009-6/30/2016.
Rate: A proportion used to represent risk for disease within a given population. It is calculated by dividing the number of diagnoses by the number of persons at risk (population estimate).
Ratio (1 in X): Number of people for every 1 living HIV case in the population, or 1 living HIV case in every X number of people.
Percent Change: The extent to which a county gained or lost HIV/AIDS cases relative to the number of cases diagnosed in the county.

For additional information regarding current residence, please contact the Center for HIV Surveillance, Epidemiology and Evaluation in the Maryland Department of Health and Mental Hygiene at 410-767-5227.

Table 4 – CD4 Test Results for Adult/Adolescent HIV Cases Alive on 6/30/2016, by Current Residents as of 12/31/2016, Reported through 12/31/2016

JURISDICTION OF RESIDENCE	Adult/Adolescent Total Living HIV Cases							
	No.	Recent CD4 Test Result						
		No. with Test	% with Test	Median Count	<200	200-349	350-499	500+
Allegany	95	82	86.3%	635	3.7%	12.2%	18.3%	65.9%
Anne Arundel	1,214	810	66.7%	566	10.9%	13.8%	16.8%	58.5%
Baltimore City	9,759	6,621	67.8%	534	13.5%	14.9%	17.5%	54.1%
Baltimore	3,107	2,014	64.8%	563	11.6%	13.9%	16.7%	57.8%
Calvert	117	94	80.3%	692	10.6%	4.3%	11.7%	73.4%
Caroline	72	44	61.1%	640	6.8%	18.2%	11.4%	63.6%
Carroll	105	70	66.7%	650	5.7%	15.7%	12.9%	65.7%
Cecil	126	78	61.9%	616	5.1%	14.1%	15.4%	65.4%
Charles	482	316	65.6%	584	10.1%	13.3%	19.6%	57.0%
Dorchester	129	94	72.9%	536	11.7%	19.1%	13.8%	55.3%
Frederick	361	241	66.8%	610	5.8%	11.2%	15.4%	67.6%
Garrett	11	8	72.7%	607	12.5%	12.5%	12.5%	62.5%
Harford	426	275	64.6%	564	10.2%	17.1%	13.8%	58.9%
Howard	558	370	66.3%	587	10.8%	12.2%	17.6%	59.5%
Kent	34	26	76.5%	544	7.7%	15.4%	23.1%	53.8%
Montgomery	3,196	2,125	66.5%	549	8.9%	14.7%	20.1%	56.3%
Prince George's	7,261	4,839	66.6%	543	11.4%	14.1%	19.1%	55.4%
Queen Anne's	49	40	81.6%	569	7.5%	20.0%	7.5%	65.0%
Saint Mary's	160	116	72.5%	543	9.5%	19.0%	17.2%	54.3%
Somerset	62	38	61.3%	590	13.2%	7.9%	15.8%	63.2%
Talbot	67	46	68.7%	424	15.2%	19.6%	19.6%	45.7%
Washington	344	251	73.0%	623	11.2%	12.0%	15.5%	61.4%
Wicomico	228	171	75.0%	492	18.1%	12.9%	19.9%	49.1%
Worcester	82	68	82.9%	616	8.8%	10.3%	19.1%	61.8%
Corrections	1,026	721	70.3%	480	17.6%	17.5%	16.1%	48.8%
TOTAL	29,071	19,558	67.3%	547	11.9%	14.5%	17.9%	55.8%

Adult/Adolescent Total Living HIV Cases: Reported HIV diagnoses, age 13 years or older at HIV diagnosis, with or without an AIDS diagnosis, and not reported to have died as of 12/31/2016.
Recent CD4 Test Result: The most recent CD4 test result measured in the specified year, reported through 12/31/2016.
Jurisdiction of Residence: Jurisdiction of residence at time of initial HIV diagnosis or most recent lab test.
M**edian Count (Recent CD4):** Median CD4 count (cells per microliter) of the most recent CD4 test result measured in the specified year, reported through 12/31/2016.
CD4 Result Distribution (<200, 200-349, 350-499, 500+): Percent of cases with a CD4 test distributed by their CD4 count results (cells per microliter).

Table 5 – Viral Load Test Results for Adult/Adolescent HIV Cases Alive on 6/31/2016, by Current Residents as of 12/31/2016, Reported through 12/31/2016

JURISDICTION OF RESIDENCE	Adult/Adolescent Total Living HIV Cases				
	No.	Recent Viral Load Test Result			
		No. with Test	% with Test	% Suppressed	Median Unsuppressed
Allegany	95	73	76.8%	89.0%	19,997
Anne Arundel	1,214	751	61.9%	78.0%	10,650
Baltimore City	9,759	6,068	62.2%	73.4%	11,482
Baltimore	3,107	1,904	61.3%	78.3%	12,337
Calvert	117	99	84.6%	86.9%	12,830
Caroline	72	43	59.7%	86.0%	3,854
Carroll	105	70	66.7%	90.0%	43,860
Cecil	126	79	62.7%	84.8%	24,845
Charles	482	324	67.2%	79.6%	15,810
Dorchester	129	98	76.0%	80.6%	8,984
Frederick	361	252	69.8%	89.7%	11,760
Garrett	11	8	72.7%	100.0%	--
Harford	426	258	60.6%	83.7%	7,851
Howard	558	364	65.2%	78.6%	13,718
Kent	34	26	76.5%	80.8%	1,630
Montgomery	3,196	2,114	66.1%	87.0%	10,480
Prince George's	7,261	4,839	66.6%	81.2%	12,850
Queen Anne's	49	35	71.4%	94.3%	80,808
Saint Mary's	160	115	71.9%	84.3%	23,820
Somerset	62	32	51.6%	78.1%	35,910
Talbot	67	47	70.1%	87.2%	51,206
Washington	344	239	69.5%	84.1%	7,258
Wicomico	228	164	71.9%	80.5%	42,815
Worcester	82	67	81.7%	89.6%	30,780
Corrections	1,026	560	54.6%	62.0%	13,588
TOTAL	29,071	18,629	64.1%	78.7%	12,100

*** Data withheld due to low population counts and/or case counts

Adult/Adolescent Total Living HIV Cases: Reported HIV diagnoses, age 13 years or older at HIV diagnosis, with or without an AIDS diagnosis, and not reported to have died as of 12/31/2016.
Jurisdiction of Residence: Jurisdiction of residence at time of initial HIV diagnosis or most recent lab test.
Recent Viral Load Test Result: The most recent viral load test result measured in the specified year, reported through 12/31/2016.
Percent Suppressed (Viral Load): Percent of adult/adolescent total living HIV cases with a most recent viral load measured in the specified year of less than 200 copies per milliliter reported through 12/31/2016.
Median Unsuppressed (Viral Load): Median unsuppressed viral load (copies per milliliter) among adult/adolescent living HIV cases with a most recent viral load test result measured in the specified year of 200 copies per milliliter or greater, reported through 12/31/2016.